FACT SHEET

EPA Region 7

Hastings Groundwater Contamination Site
Second Street Subsite
Hastings, Nebraska ***September 2000***

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 will be conducting a removal action at the Second Street Subsite of the Hastings Groundwater Contamination Site in Hastings, Nebraska. Removal activities will include the installation of two in-well aeration systems (in-well stripping). EPA's on-site activities are scheduled to begin the week of September 18, 2000, and are expected to last approximately six weeks.

SITE BACKGROUND

The Hastings Groundwater Contamination Site in Hastings, Nebraska, consists of an aquifer contaminated with hazardous substances as well as the contaminated soil that overlies the aquifer. The EPA has divided the site into seven subsites, based on the various sources of the contamination.

The Second Street Subsite is located on the eastern edge of the central downtown area of Hastings. From the late 1800s to the early 1900s, a manufactured gas plant (MGP) operated in this area, producing gas for household heating, cooking, and lighting. As part of this process, by-products (primarily coal tar) were produced and disposed of on-site and now contaminate the soil and ground water. The main contaminants, which are generally found in coal gas wastes, are benzene, ethyl benzene, toluene, xylenes (BTEXs), and polynuclear aromatic hydrocarbons (PAHs).

In addition to the MGP source area, an adjoining area located immediately to the east of the MGP source area, the Foote Oil Company UST (Underground Storage Tank) site, has been found to contain contamination associated with underground storage tanks. The same BTEX contaminants found in the MGP wastes are also components of refined petroleum products, such as gasoline. The Foote Oil Company contaminated soils are being treated by a soil vapor extraction system installed under the oversight of the state of Nebraska's Leaking Underground Storage Tank Program.

PREVIOUS ACTIONS

Based on contaminants identified in both onsite MGP soil and ground water and downgradient ground water, an Engineering Evaluation/Cost Analysis (EE/CA) was prepared and released in August 1995.

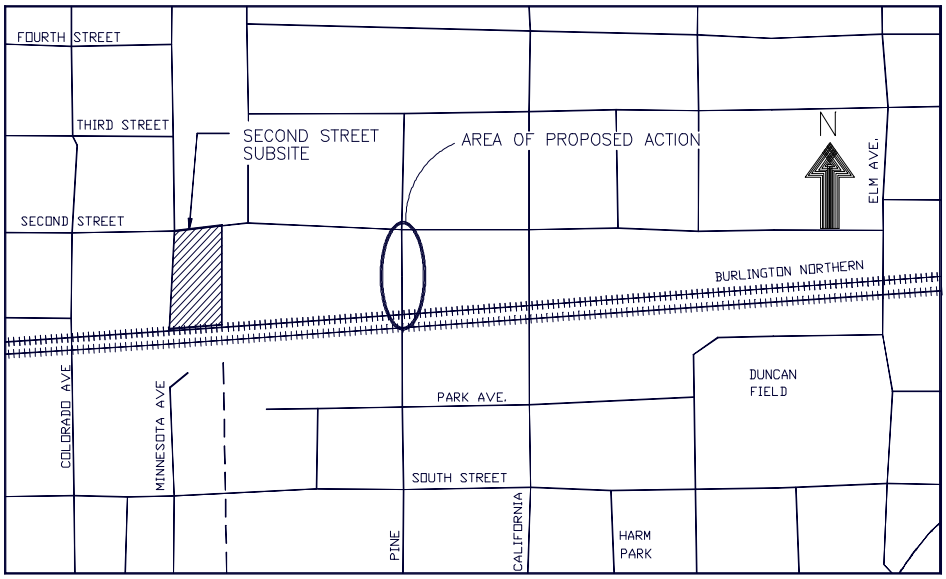
Since 1995, the EPA has collected additional ground water data from samples collected from the downgradient monitoring wells. As a result, the downgradient ground water contaminant plume

has been better defined. In May 1999, an addendum to the EE/CA presented an updated evaluation of ground water removal action alternatives.

The original EE/CA identified extraction, treatment and surface water discharge as a ground water removal action alternative. The addendum to the EE/CA identified two response action alternatives: A) in-situ ground water treatment without discharge (in-well stripping), and B) traditional ground water extraction, treatment, and surface water discharge.

REMOVAL ACTION

This newer in-situ alternative requires the installation of two in-well stripping wells. The



treatment process involves the low-pressure injection of air into the well below the water table. The injected air causes a pressure that acts like an airlift pump to draw ground water up and through a lower screen. The trapped air strips the contaminants and aerates the ground water. The aerated water is allowed to rise until it reaches a level where it can flow out into the ground water formation through an upper screen. The air produces a flow pattern which treats a large radial area outward from the well. The contaminated vapors stripped from the water would be removed by an above-ground vacuum system and treated with activated carbon. There will not be a release of contaminated vapors to the air. The newer in-well stripping technology does not require above-ground handling or discharge of water.

The removal activity will consist of:

- drilling and installing two monitoring wells and two in-well stripping units
- trenching and excavating for underground pipes

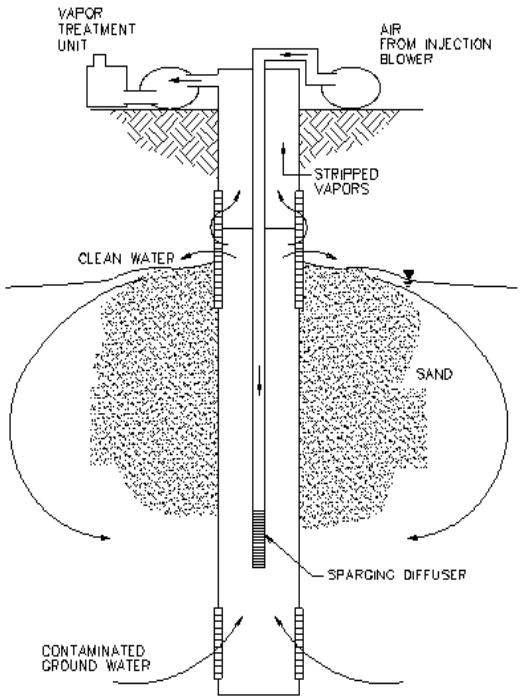
After construction of a new commercial car wash, EPA will install the system into one of the car wash bays. The treatment equipment will be secured by doors during its operation.
During the well-drilling activities, the area behind the existing convenience store will be used for storing well materials, parking the well drilling trucks and rerouting traffic. Traffic must be

rerouted around the west entrance to the convenience store, which will be closed during well drilling activities.

EPA anticipates operating the water treatment system for two years and evaluating the effectiveness before deciding whether to extend the period of operation.

ADDITIONAL INFORMATION

The administrative record containing site-related documents can be reviewed during normal



business hours at the Hastings Public Library, 517 West 4th Street, Hastings, Nebraska, or the EPA Region 7 office at 901 N. 5th Street, Kansas City, Kansas.

If you have questions or need additional information regarding this site, please contact:

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